

PROTSKII, A.Ye., inzh.

Investigating the drying process of milled peat during curvilinear
motion of the air mixture. Sbor. nauch. rab. Bel. politekh. inst.
no.69:51-74 '58. (MIRA 12:7)

(Peat--Drying)

PROTSKIY, A.Ye., inzh.

Experimental study of cyclone drying of milled peat. Izv. vys.
ucheb. zav.; energ. 3 no.8:72-78 Ag '60. (MIRA 13:9)

1. Belorusskiy politekhnicheskiy institut. Predstavlena kafedroy
teoreticheskoy i obshchey teplotekhniki.
(Peat-- Drying)

11(7)

SOV/112-59-2-2476

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 2,
pp 29-30 (USSR)

AUTHOR: Protskiy, A. Ye.

TITLE: On the Problem of Drying Dug Peat in a Cyclone
(K voprosu sushki frezernogo torfa v tsiklone)

PERIODICAL: Sb. nauchn. rabot. Belorussk. politekhn. in-t, 1957, Nr 62,
pp 125-140

ABSTRACT: Dug peat has been dried in drum-type and tube-type dryers and also in pneumatic pipe-type dryers. The first two types of dryers are cumbersome, requiring large quantities of metal and special buildings. Pneumatic pipe dryers are simple in construction, require little metal and floor area, but have a considerable height. The drying effect increases with higher relative speeds of the drying agent. Heat exchange and moisture exchange of the particles being dried with a drying agent are also determined by the boundary

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On the Problem of Drying Dug Peat in a Cyclone

layer of the liquid which is usually formed on these particles. Both laminar and turbulent motion conditions are possible at the boundary layer. Thinner laminar boundary layers have lower thermal resistance. Heat exchange of considerable intensity takes place when the laminar boundary layer is turned into the turbulent. Higher relative speeds are conducive to thinning down and to agitating the boundary layer. Analysis of the curvilinear motion of the air mixture in a conventional cyclone shows that relative speeds considerably exceeding those in a straight-line stream can be attained in the cyclone chamber. In addition, with a curvilinear motion of the air mixture, maximum turbulent agitation of the stream occurs. For these reasons, the cyclone-type dryers can operate with considerably higher efficiency and can be more compactly built than the conventional dryers. Tests conducted with a cyclone of 200-mm diameter and with a drying air temperature of 200°C have shown good results.

I. B. Kh.

Card 2/2

PROTSKIY, N.Ye., inzh.; PANYUSHKINA, Ye.G., inzh.

Increasing the durability of rolls on the 400 automatic mill.
Met. i gornorud. prom. no.2:29-36 Mr-Ap '62. (MIRA 15:11)

1. Nikopcl'skiy yuzhnotrubby zavod.
(Rolls (Iron mills))

VORONOVA, N.A., doktor tekhn. nauk; STOVPCHENKO, P.I., inzh.;
KRIVOSHEYEV, V.A., inzh.; PROTSKIY, N.Ye., inzh.; ZAYATS, A.P.,
inzh.; NESTEROVA, G.V., inzh.

Cast ball mandrels for pipe-rolling mills. Mashinostroenie
no.3:54-55 My-Je '63. (MIRA 16:7)

1. Institut chernoy metallurgii AN UkrSSR (for Voronova,
Stovpchenko, Krivosheyev). 2. Nikopol'skiy yuzhnotrudnyy
savad (for Protskiy, Zayats, Nesterova).
(Pipe mills)

PROTSKIY, N. Ye.

✓ Effect of sulfur on the quality of cast mandrels of piercing mills. N. E. Protskiy and M. V. Solovichev. *Liteline* 1935, No. 10, 25-6. For checking the effect of S on service life of 0.26% C, 0.41 Mn, 0.38 Si, 1.47 Cr, 2.68 Ni cast mandrels, the S content of the same heat was increased from 0.026 to 0.209% S, but the av. service life did not change. J. D. Gat

①

Prot. Key, N.Y.

KOROBCHIKIN, I.Yu., inzh.; PROTSKIY, N.Ye., inzh.; PANYUSHEINA, Ye.G., inzh.

Increasing the strength of calibers used in pipe cold rolling mills
at the Nikopol' Southern Pipe Plant. Bul. TSNIIICM no.1:20-24 '58.
(Nikopol'—Rolling mills) (MIRA 11:5)

PROTSKIY, N.Ye.; SOLOVEYCHIK, M.V.

Effect of sulphur content on the quality of cast piercing mill
mandrels. Lit.proizv. no.10:25-26 0'55. (MIRA 8:12)
(Rolling mills) (Cast iron--Analyses)

VORONOVA, N. A., doktor tekhn. nauk; STOVPOCHENKO, P. I., inzh.;
KRIYOSHEYEV, V. A., inzh.; PROTSELY, M. Ye., inzh.;
ZAYATS, A. P., inzh.; NESTEROVA, G. V., inzh.

Ball instead of cone mandrels for automatic pipe mills.
Me. i gornorud. prom. no. 3:70-31 My-Je '63.

1. Nikopol'skiy yuzhnotrubnyy zavod (for Prot'skiy, Zayats, Nesterova).

SOV/133-59-6-23/41

AUTHORS: Protskiy, N.Ye. and Mavrodiy, P.D., Engineers

TITLE: Introduction of Cooled Mandrels on a Disc Piercing Mill (Vnedreniye okhlazhdayemykh opravok na diskovom proshivnom stane)

PERIODICAL: Stal', 1959, Nr 6, pp 546-550 (USSR)

ABSTRACT: On the basis of experience of operation with various designs of water cooled mandrels a new design was developed on the works (Fig 1). Its main features are: comparatively thin nose; internal and external water cooling. The method of fixing the mandrel to the bar and the diagram of the water cooling system are shown in Fig 4 and 5 respectively. The suitability of a number of steels for water cooled mandrels were tested (table 2), the best results (table 3) were obtained with 3Kh2V8 steel and satisfactory results with steels 12KhN3A and 12N3A. Small mandrels can be made satisfactorily by machining stamped semis, forged in accordance with the external shape of the mandrels. The durability of water cooled mandrels on 140 disc piercing mills was 10 to 15 times higher than that of ordinary mandrels. In addition, working conditions of

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SOV/133-59-6-23/41

Introduction of Cooled Mandrels on a Disc Piercing Mill

mill operators were improved (number of operators decreased by 6 men) and the basis for a complete automation of the mill was presented. There are 7 figures, 3 tables and 3 Soviet references.

ASSOCIATION: Nikopol'skiy Yuzhnotrubnyy zavod
(Nikopol' Yuzhnotrubnyy Works)

Card 2/2

SADOKOV, G.M.; BOSKO, V.S.; PROTSKIY, N.Ye.; PANYUSHKINA, Ye.G.

Durability of extruding ring dies on mechanical extrusion
processes. Met. i gornorud. prom. no.6:67-68 N.D. '65.

(MIRA 18:12)

L 00808-67

ACC NR: AR6014274

SOURCE CODE: UR/0270/65/000/011/0037/0037

AUTHORS: Kupchinov, I. I.; Lebedev, S. M.; Vilenskiy, V. R.; Protsko, D. V. 41

TITLE: The balancing of leveling, theodolitic, polygonometric, and trigonometric networks with the "Ural" electronic digital computer B

SOURCE: Ref. zh. Geodesiya, Abs. 11.52.247

REF SOURCE: Uravnovesivaniye nivelirnykh, teodolitnykh, poligonometricheskikh i trigonometricheskikh setey na ETsVM Ural. M., Nedra, 1965, 187 str.

TOPIC TAGS: digital computer, computer program, coordinate, trigonometry, polygonometry, theodolite/ Ural digital computer

ABSTRACT: The book contains five programs compiled for the "Ural" computer, providing for operation of the computer in fixed point mode. 1. The node method is used in the program for strict balancing of leveling networks. The following conditions are imposed on the network: number of determined nodal points ≤ 60 , number of moves ≤ 120 , number of sections ≤ 25 . Single moves between solid points can be calculated. Excesses in a network can be obtained from geodetic or geometric leveling. A system of normal equations is solved by the approximation method. 2. Program of separate equalization of polygonometric networks and theodolitic moves. The program is compiled for the node method. Conditions:

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UDC: 528.16(076):681.142.2

L 00808-67
ACC NR: AR6011274

number of determinable nodal points ≤ 32 , number of moves ≤ 64 , number of lines in move ≤ 19 . Equalization of single moves which adjoin solid points is possible; here the number of moves in one series is ≤ 64 . There must not be solid directions at the points being determined. Normal equations are solved by the approximation method. The program provides for leveling of free networks. 3. Up to 64 moves can be handled in 1 by a program of strict balancing of single polygonometric moves. The number of sides in a move ≤ 19 . Calculation of the move takes $\sim 2.5-3$ min of machine time. 4. A program of two-group balancing of a polygonometric network permits balancing of networks with ≤ 8 nodal points to be determined; number of moves ≤ 20 ; number of lines in each move ≤ 14 . The program permits balancing of single moves. The system of normal equations is solved by the Gauss method. 5. The method of satisfactory measurements underlies the program of two-group balancing of trigonometric networks. The primary corrections of the directions are determined from the angle conditions, and the secondary, from the sine conditions. The following conditions are imposed on the network: number of points ≤ 18 ; number of points determined ≤ 10 , number of sides along which at least 1 direction is measured ≤ 28 ; length of sides not less than 100 m. There can be unilateral directions in the network. The initial data can be merely the coordinates of the solid points. Lists of working formulas, block diagrams, the order of preparation of the initial data, and the order of operation at the panel of the computer are provided for all programs. Examples of the compilation of the initial data are given. The balanced.

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L-00808-67

ACC NR: AR6014274

elements of the networks, the allowable and actual deviations, the rms errors of a unit weight are printed out in all of the programs. Illustrated. A. Safonov

[Translation of abstract]

SUB CODE: 09

Card 3/3 vlr

KUPCHINOV, Ivan Iosifovich, dotsent; LEBEDEV, Sergey Malakhovich;
PROTSKO, Dmitriy Vasil'yevich, starshiy prepodavatel';
PETRUKOVICH, Aleksey Alekseyevich, zaslužhennyy deyatel' nauki
i tekhniki UzSSR; ZUBRITSKIY, I.V., prof., retsenzent; CHERNYSHEV,
M.A., retsenzent; BIRYUKOV, N.N., dotsent, retsenzent; SOLOMONOV,
A.A., dotsent, retsenzent

[Geodesy; textbook for students at higher railroad transportation
schools] Geodeziia; uchebnoe posobie dlia studentov vuzov
zheleznodorozhnogo transporta. Pod obshchei red. A.A.Petrukovicha.
Moskva, Vses.zaochnyi in-t inzhenerov zhel.-dor.transp., 1959.
365 p. (MIRA 14:1)

1. Zaveduyushchiy kafedroy geodezii Belorusskogo instituta inzhenerov zheleznodorozhnogo transporta (for Lebedev).
2. Zaveduyushchiy kafedroy "Put' i putevoye khozyaystvo" Belorusskogo instituta inzhenerov zheleznodorozhnogo transporta (for Petrukovich).
3. Zaveduyushchiy kafedroy "Put' i putevoye khozyaystvo" Vsesoyuznogo zaochnogo instituta inzhenerov zheleznodorozhnogo transporta (for Chernyshev).

(Surveying)

PROTSKO, G.N.

BEREZNITSKAYA, S.A.; KLIMOVA, M.S.; GRIGOR'YEVA, A.A.; AYZIKOVICH, R.S.; BUTOVSKIY, V.A.; SLOVACHEK, M.A.; ANDRUSHCHUK, A.A.; STARTSEV, I.A.; PROTSKO, G.N.

Effect of schedule and feeding on development of infants from one to three years of age. *Pediatrics*, Moskva no.6:18-25 Nov-Dec 1953.

(CML 25:5)

1. Deceased for Butovskiy. 2. Of the Ukrainian Scientific-Research Institute for the Care of Mother and Child imeni Hero of the Soviet Union Prof. P. M. Buyko (Director -- M. D. Burova, Honored Physician Ukrainian SSR) and the Ukrainian Scientific-Research Institute of Nutrition (Director -- Candidate Medical Sciences A. T. Stovdun).

experience in organizing proper feeding of school age children.
A.M. Uranskii, I.A. Startseva, V.A. Shvaiko, G.B. Protsko,
A.M. Boyarskii, A.L. Koshol. Vop. pit. 12 no. 1:85 Ja-F '55.

BEREZNITSKAYA, S.A.; KLINOVA, M.S.; GRIGOR'YEVA, A.A.; AYZIKOVICH, R.S.;
BUTOVSKIY, V.A.; SLOVACHEK, M.A.; STARTSEV, I.A.; PROTSKO, G.N.

Effect of regimen and nutrition on the development of 3 to 7-
year old children. *Pediatrics* no.3:91 My-Je '54. (MLRA 8:1)

1. Iz ukrainskogo instituta okhrany materinstva i detstva i
instituta pitaniya.

(CHILDREN--CARE AND HYGIENE)

(CHILDREN--NUTRITION)

ZASLAVSKIY, David Iosifovich; KOVTUN, Yu., red.; PROTS\KO, L., mladshiy
red.; MIRNOV, G., tekhn. red.

[International significance of the Soviet seven-year plan] Mezhdunarodnoe znachenie sovetskoi semiletki. Moskva, Izd-vo sotsial'no-ekon. lit-ry, 1961. 69 p.
(Russia--Economic policy) (MIRA 14:12)

PROTS'KO, Mark Alekseyevich; YETISOVA, M.P., red.; NAUMOV, K.M.,
tekhn.red.

[Dialectics of productive forces and production relations in
a socialist society] Dialektika proizvoitel'nykh sil i pro-
izvodstvennykh otnoshenii v sotsialisticheskom obshchestve.
Moskva, Izd-vo VPSH i AON pri TsK KPSS, 1960. 115 p.

(MIRA 13:12)

(Economics)

PROTS'EC, M. A.

O roli intelligentsii v sovetskom obshchestve /On the role of the intelligentsia in the Soviet society/ Moskva, Gospolitizdat, 1953. 240 p.

SO: Monthly List of Russian Accessions, Vol. 6, No. 5, August 1953.

PROTSKO, R. F.

Protsko, R. F.

"The physiological basis for certain methods of increasing the productivity of buckwheat." Kiev State U imeni T. G. Shevchenko. Kiev, 1956.
(Dissertation for the Degree of Biological Sciences.)

Knizhnyy Letopis'
No. 18, 1956. Moscow.

PROLKO, B.F.; DUDCHENKO, L.G. [Dudchenko, L.H.]

Mechanism of the action of gibberellin. Report No.1: Gibberellin and the ascorbic acid and glutathione systems. Ukr. bot. zhur. 21 no.6:3-9 '64. (MIRA 18:2)

1. Otdel fiziologii Instituta botaniki AN UkrSSR.

PROTSEKO, A.I.; DUDCHENKO, L.G. [Dudchenko, L.G.]

Dynamics of ascorbic acid and glutathione in etiolated pea seedlings. Ukr. bot. zhur. 21 no. 5: 77-83, 1966. (MER: 18-2)

1. Obdel. fiziologii rasteniy Institute botaniki AN UkrSSR.

PROTSKO, S. [Prots'ka, S.]

Education of upright people. Rab. 1 sial. 37 no. 4:16 Ap '61.
(MIRA 14:4)

(White Russia—Dairy workers)

L 29232-66 EWT(m)/EWP(t)/ETI JD

ACC NR: AP6019339

SOURCE CODE: UR/0136/66/000/003/0020/0022

AUTHOR: Blyumkin, G. V.; Kritskiy, Ye. L.; Lokonov, M. F.; Protsuto, V. S.

ORG: none

TITLE: Questions on the use of computer technology at concentrating and agglomerating plants

SOURCE: Tsvetnyye metally, no. 3, 1966, 20-22

TOPIC TAGS: computer technology, automation

ABSTRACT: In connection with the absence of specialized data and computer machines for concentrating and agglomerating plants, the different systems of collection and processing current information, based on data and computer machines of general industrial use, are being proposed at the present time. The Central Planning and Design Office in its plans, is oriented to SOU and TsSTI systems for the Zyryanov Concentrating Plant the VNIIE-3 machine was selected; in the planning assignment for the automation of the production at the Zhdanov Concentrating Plant use is provided for a newly developed electronic machine. Additionally the UMSHn, MPPI, UM-1, MARS-UB and other machines and devices are recommended by various departments and individual organizations.

[JPRS]

SUB CODE: 13, 09 / SUBM DATE: none / ORIG REF: 005 / OTH REF: 003

Card 1/1 cc

UDC: 622.7.002.6

L 00009-66 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l)

ACCESSION NR: AR5008444

UR/ 0271/65/000/002/A015/A016
62-505

48
B

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika.
Svodnyy tom, Abs. 2A82

AUTHOR: Aref'yev, B. A.; Kritskiy, Ye. L.; Protsuto, V. S.

TITLE: Extremal controller operating on a single-dither principle

CITED SOURCE: Obogashcheniye rud, no. 1(49), 1964, 31-32

TOPIC TAGS: extremal controller, automatic control, automatic control system,
automatic control design, automatic control theory

TRANSLATION: Two principal circuits are considered of an extremal controller which realize the control principle arising from a solution of the plant differential equations. A control system is constructed which migrates to the extremum according to $x_e = \frac{\Delta_s - \Delta_e e^{T-N}}{K}$. The system performs the following operations:

(1) turning on the actuator for a time τ and simultaneously measuring the control variable y_0 ; (2) reversing the actuator after time τ and measuring the control

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ACCESSION NR: AR5008444

variable y_1 at the moment of reversal; (3) measuring the increment $\Delta_1 = y_1 - y_0$ over the period τ of the dither; (4) turning off the actuator after its return to the home position and measuring the control variable y_2 at the turn-off moment; (5) measuring the increment $\Delta_2 = y_2 - y_1$ over the time of the reverse movement of the actuator; (6) decreasing the increment by $\Delta_1 e^{-1/\tau}$ times; (7) subtraction, from the increment Δ_2 , of two quantities: the product $\Delta_1 e^{-1/\tau}$ and the constant N . The result determines, with an accuracy of K coefficient, the required migration of the control element. A block diagram of a controller performing all the above functions is presented, and its operation is explained; also a principal diagram of the extremal-controller computer designed with electron tubes is given. Another controller intended to realize the same principle with standard components is also presented. Figs. 3, Bibl. 2.

SUB CODE: IE, DP

ENCL: 00

Card 2/2

AREF'YEV, B.A.; KRITSKIY, Ye.L.; PROTSUTO, V.S.

Extremal regulation of ore dressing machines according to
the principle of occasional trial runs. Obog. rud. 8 no.3:
33-35 '63. (MIRA 17:1)

PROCEEDINGS

A. C. BOWEN, Arch. Sci. Hist. USSR 35-4, No. 1, 1934. 267-7

PROCESSING AND PROPERTIES INDEX	
16	Production of citric acid under plant conditions. O. P. Iznod'yakov. <i>Microbiology</i> (U. S. S. R.) 8, No. 3-4, 1959, 13(1959); <i>Khim. Referat. Zhur.</i> 1959, No. 12, 112-13. The active acid-forming strain of <i>Aspergillus niger</i> grows in beer must, after which the nutritive medium is replaced by a sugar soln. After 2-6 days of fermentation in the chambers the process is completed and the acid sepd. in the form of the Ca salt. Ammonium salts are added as stimulants of fermentation. <i>Aspergillus niger</i> can also be cultivated directly on sugar. In the fermenting chambers various types of microflora were detd. Most of them (<i>Bact. subt.</i>, <i>Oidium lact.</i>, <i>Aspergillus fumigatus</i>) do not change the acid-forming property of the fungus. Others (<i>Bact. lact. aerogenes</i>, <i>Bact. coli comm.</i>, <i>Bact. fluorescens</i>, <i>Mycoderma cernitis</i>, <i>Penicillium rugulosum</i>) reduce the acid-forming ability by 100% and even destroy the micellae of the fungus. Yeasts that form a film before the fungus can be destroyed by increase of the inoculation of the fungus. <i>Bact. fluorescens</i> is removed by washing the container with a 1% soln. of formalin. <i>Penicillium rugulosum</i> is removed by sterilization of air of the fermentation chambers with formalin. During the simultaneous growth with <i>Aspergillus niger</i>, <i>Bact. coli</i> and <i>Bact. lactis aerogenes</i> reduce HNO_3 to HNO_2, and thus decrease the acid-forming ability of the fungus. By replacing NH_4NO_3 with NH_4Cl in the nutritive medium it is possible to grow these microorganisms simultaneously without harmful effect. W. R. Henn
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION	

Geol-Min
PROTSYETALOVA, T. N. Cand [REDACTED] Sci -- (diss) "The Ostrog ^{stratum} deposits and
conditions of ^{their} formation on the territory of the Kuznetsk coal basin."
Mos, 1958. 19 pp (Acad Sci USSR. Inst of Petroleum), 120 copies (KL, 13-58, 94)

PROTSVETALOVA, T.N.

Petrography and conditions of sediment formation of deposits in
the Ostrog series in the Kuznetsk Basin. Biul. MOIP. otd. geol.
32 no.2:160 Mr-Apr '57. (MIRA 11:3)
(Kuznetsk Basin--Rocks, Sedimentary)

PROTSVETALOVA, T.N.

Formation conditions of the Ostrog series of the Kuznetsk Basin.
Dokl. AN SSSR 113 no.6:1331-1333 Ap '57. (MLRA 10:6)

1. Institut nefti Akademii nauk SSSR. Predstavleno akademikom N.M.
Strakhovym.

(Kuznetsk Basin--Geology, Stratigraphic)

SARKISYAN, S.G.; PROTSVETALOVA, T.N.

Some petrographic characteristics of bituminous argillites in the Mar'yanovskaya series (West Siberian Plain). Izv. vys. ucheb. zav.: geol. i razv. 7 no.2:56-60 F'64. (MIRA 17:2)

1. Institut geologii i razrabotki goryuchikh iskopayemykh AN SSSR.

5-2-27/35

SUBJECT: USSR/Geology

AUTHOR: Protsvetalova T.N.

TITLE: Petrography and Sedimentation Conditions of Sediments of the Ostrog Strata of the Kuznetsk Basin (Petrografiya i usloviya osadkoobrazovaniya otlozheniy ostrogskey svity Kuznetskogo bassayna)

PERIODICAL: Byulleten' Moskovskogo Obshchestva Ispytateley Prirody, Otdel Geologicheskij, 1957, # 2, p 160 (USSR)

ABSTRACT: The first section of the lower sub-formation of the Ostrog formation in the Kuznetsk Basin is composed of conglomerates and sandstones; its second section is composed mainly of argillites and siltstones, it contains sandstones only in the basis. The first section was formed under continental conditions, whereas the second section is represented by formations of a sea basin in the north and by lake sediments in the south. The age of the lower sub-formation is estimated as Upper Wise-Lower Namur, according to flora and fauna data.

The upper sub-formation differs from the lower one by the presence of marine sediments represented by a sandstone con-

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5-2-27/35

TITLE: Petrography and Sedimentation Conditions of Sediments of the Ostrog Strata of the Kuznetsk Basin (Petrografiya i usloviya osadkeobrazovaniya otlozheniy ostrogokey svity Kuznetskogo basseyna)

taining up to 70 to 80 % of quartz. The upper half of this sub-formation includes coal layers widely spread in the territory of the Kuznetsk Basin. The age of the upper-sub-formation is estimated as Upper Wise-Lower Namur, according to its fauna data. Its flora, however, gives grounds to consider it as belonging to the beginning stage of the Middle-Carboniferous period.

No references are cited.

ASSOCIATION: Moskva Society of Investigators of Nature

PRESENTED BY:

SUBMITTED: On 18 January 1957

AVAILABLE: At the Library of Congress.

Card 2/2

20-6-41/59

AUTHOR
TITLE

PROTSVETALOVA, T.N.

Formation conditions of the Ostrog series of the Kuznetsk basin. (Usloviya obrazovaniya Ostrogskey svity Kuznetskogo basseyna.- Russian)

PERIODICAL

Doklady Akademii Nauk SSSR 1957, Vol 113, Nr 6, pp 1331-1333 (U.S.S.R.)

ABSTRACT

The deposits of this series can be clearly enough subdivided into 3 masses: the lower, mainly of sandstones, the middle - of argillites and finegrained aleurolithes and an upper one - of varying stratification of sandstones, aleurolithes, and argillites with rare thick coal intermediate strata. The two lower masses are considered as the lower lower-series, the third - as upper lower-series. The lowest mass is probably chiefly stratified in continental conditions. Carbonized plant remains and roots as well as matrices of organisms pierce the rocks. The second mass of the lower lower-series is characterized by unequal deposit conditions in the north and in the south of the basin. Brachiopod shells and phylloped crustacea in the north prove marine deposits, whereas in the south they were probably formed in the lake basin. Also the initial formation of the upper lower-series passed in the north in marine conditions. At this time a stratum of small-grained

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Formations conditions of the Ostrog series of the Kuznetsk. basin.

sandstone with leptochlorite cement without organism remains was formed in the south. Higher in the profile there are no marine deposits, either in the north or in the south. The sandstones and aleurolithes are well sorted out with cross- and wave stratification luted with carbonate cement and with various hieroglyphs on the lower side of the strata. No marine fauna. The rocks were probably formed in lagoon conditions, several times alternating with continental surroundings. The petrographic composition of the Ostrog series characterizes its deposits as typical of a geosynclines region. In the bottom part of the lower series splinters of effusive rocks dominate. The cement of the sandstones is of a pore-filling type, finely ground and of the same composition as the grains. Minerals of the heavy fractions are rare and rarely represented. Among the constant ones zirconium, garnet, and turmaline dominate. The structure of the Ostrog series are characterized by their rhythm. The lower and upper lower-series form two great rhythms which the author calls rhythms of I. order. Smaller rhythms of second order are formed from coarse-grained differentiations of rocks which alternate towards the top with relatively fine-grained and then again with coarse-grained ones. A total of 5 rhythms of second order can be distinguished. In the east, adjacent to the Kuznetsk Ala-Tau, only 5. rhythms was found. Sedimentation developed irregularly

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Formations conditions of the Ostrog series of the Kuznetsk basin.

after a short interruption in the Kuznetsk basin. It began earlier in the north and extended as far as the eastern edge. The rhythmical rocking movements which the author describes as rhythms of the first order had extended to a vast area. One of the main factors to influence the distribution of the various types of deposit was the irregular through-bend of the basin. After the completed deposition of the lower lower-series the deposits were eroded. Later the marine basin was forced back by the penetration of great quantities of clastic material. The main masses of the clastic material came at that time from the east and south-east. There were effusive, metamorphic and sedimentary deposits which take part in the structure of the old folding-zones of the Kuznetsk Ala-Tau and Sayan-Altay. (4 Slavic references.)

ASSOCIATION: Petroleum Institute of the Academy of Science of the U.S.S.R.
(Institut nefti Akademii nauk SSSR)

PRESENTED BY: N.M. STRAKHOV, Member of the Academy.

SUBMITTED: 26.11. 1956

AVAILABLE: Library of Congress.

CARD 3/3

PROTSVETALOVA, T.N.; SARYCHEVA, T.G.; SOKOL'SKAYA, A.N.

Lower Carboniferous age of the Ostrog series in the Kuznetsk Basin.
Izv. AN SSSR. Ser. geol. 21 no. 2: 86-100 F '56. (MLRA 9:5)

1. Paleontologicheskii institut AN SSSR, Moskva.
(Kuznetsk Basin--Geology, Stratigraphic)

PROTSVETALOVA, T. N.

Mineralogical Characteristics of Contemporary Alluvia of the Kura River and of Its Tributaries From the Dzirul'sk Massif to the City of Tbilisi

The author distinguishes five groups of rivers according to the rocks eroded by them and according to the mineralogical composition of the alluvia. He describes these five groups in detail, and presents table of the mineralogical characteristics and diagrams of mineral contents of the contemporary alluvia of the Kura and tributaries. (RZhGeol, No. 5, 1955) Tr. in-ta Nefti AN SSSR, 3, 1954, 89-96.

SO: Sum No. 744, 8 Dec 55 - Supplementary Survey of Soviet Scientific Abstracts (17)

PROTSVETALOVA, T.N.

Mineralogical characteristics of the present alluvium of the Kura
River and of its tributaries from the Dzirula Massif to the city
of Tiflis. Trudy Inst. nefti 3:89-96 '54. (MLRA 8:6)
(Kura Valley--Alluvium)

PROTSVETALOVA, Tat'yana Nikolayevna; SARKISYAN, S.G., prof., otv. red.;
TURSHU, A.I., red. izd-va; DOROKHINA, I.N., tekhn. red.

[Ostrog series of the Kuznets coal basin and conditions of its formation] Ostrogskaia svita Kuznetskogo kamennougol'nogo basseina i usloviia ee obrazovaniia. Moskva, Izd-vo Akad. nauk SSSR, 1961. 119 p.
(MIRA 14:11)

(Kuznets Basin--Coal geology)

~~PROTSYAKOVA~~, V.I.; BELOVA, R.S.; YANKOVSKIY, I.I.

Working conditions in coring with neutron sources. Med.rad.
5 no.2:62-66 P '60. (MIRA 13:12)
(POLONIUM) (BERYLLIUM) (RADIATION PROTECTION)

PROBYK, M.

"On zooveterinary servicing of consolidated kolkhos." (contributor)

SC: Vet. 23 (10), 1951, p. 8.

Veterinary Hospital, city of Gulyapoli'ye, Zaporozh oblast

L 16846-53

EPR/EPF(c)/EWP(q)/EWT(m)/BDS

APFTC/ASD

Ps-4/Pr-4

WH/K

ACCESSION NR: AR3006337

S/0058/63/000/007/H046/H046

SOURCE: RZh. Fizika, Abs. 7Zh311

AUTHOR: Protsy*kov, Ye. V.

TITLE: Distribution of electrons by energies in polycrystalline graphite

CITED SOURCE: Sb. Materialy* 4-y nauchn. konferentsii aspirantov. Rostovsk. un-t. Rostov-na-Donu 1962, 70-72

TOPIC TAGS: photoemission, graphite, work function

TRANSLATION: Measurement of the photoelectronic emission from polycrystalline graphite was made by the Lukirskiy method of spherical capacitor, at room temperature in a vacuum of $\sim 10^{-8}$ mm Hg. The volt-ampere characteristics were plotted for wavelengths 2399 and 2302 Å. The photoelectronic work function ϕ turned out to be

Card 1/2

L 16846-63

ACCESSION NR: AR3006337

(4.38 $\pm$ 0.01) eV. From the difference in the blocking potentials for graphite and for gold, measured in the same spheric capacitor, the width of the forbidden zone was found to be $E = 0.1 \pm 0.02$ eV. The energy distribution of the photoelectrons obtained in this work differs from the distribution for the metals. A large number of slow electrons knocked out by the light from the valence band is observed. A second maximum appears at large blocking fields, this being due to the too close almost overlapping bands. With increasing energy of the incident photons, the relative number of slow electrons increases. Ye. Figurovskaya.

DATE ACQ: 15Aug63

SUB CODE: PH

ENCL: 00

Card 2/2

PROTSYUK, V. (Kherson)

A regulated electric current rectifier. Radio no. 12:21 D '62.
(MIRA 16:3)

(Electric current rectifiers)

PROTYANOVA K.D.

FRANKFURT, A.I., polkovnik meditsinskoy sluzhby, prof.; LINKOVA, Z.D.;
OKONISHNIKOVA, O.A., mayor meditsinskoy sluzhby; PROTYANOVA, K.D.

Liver, pancreas, and kidneys in chronic gastritis. Voen.med.zhur.
no.2:66-69 F '58. (MIRA 11:4)

(LIVER, in various dis.

gastritis, funct. disord)

(PANCREAS, in various dis. same)

(KIDNEYS, in various dis. same)

(GASTRITIS, compl.

live, pancreas & kidney funct. disord.)

SOV/177-58-2-11/21

17(10)
AUTHORS:

Frankfurt, A.I., Colonel in the Medical Service. Professor:
Lin'kova, Z.D.,
Okonishnikova, G.A., Major in the Medical Service, and
Protyanova, K.D.,

TITLE:

The Condition of the Liver, Pancreas, and Kidney in Cases of
Chronic Gastritis

PERIODICAL:

Voyenno-meditsinskiy zhurnal, 1958, Nr 2, pp 66-69 (USSR)

ABSTRACT:

The article deals with the results of observation of 115 patients, similar in age, working conditions and eating habits, with chronic gastritis, showing no indications in anamnesis of any effects on the liver, pancreas, or kidneys. The subjects were all men 20 - 25 years old, of which 20 had been ill up to 6 months, 27 from 7 - 12 months, 50 from 1 - 3 years, and 18 for more than 3 years. 76% showed objective signs of chronic gastritis, while the others showed fewer symptoms. 50 showed an increase in the acidity of stomach secretions, 31 were normal in this respect, 17 showed a decrease in acidity, and in 17 free hydrochloric acid was absent. The

Card 1/2

SOV/177-58-2-11/21

The Condition of the Liver, Pancreas, and Kidney in Cases of Chronic Gastritis

authors describe the method for determining the condition of the liver, pancreas and kidneys, performed at registration and discharge from the hospital. The results are described in the text. Some disturbance of the normal functioning of these organs often accompanies chronic gastritis. The liver is particularly affected, and is the slowest to return to normal, while the kidneys are least affected and return to normal more quickly. The authors suggest that in view of the frequency of disturbance of the liver accompanying chronic gastritis, complex treatment be used.

Card 2/2

1ST AND 2ND GROUPS
PROCESSES AND PROPERTIES INDEX
3RD AND 4TH GROUPS

CC

22

Chemical nature of petroleum tar. N. A. Orlov, K. F. Protyanova and V. P. Flegontov. *Khim. Tverdogo Topliva* 7, 748-80 (1936).—Tar (d. 0.910), obtained by pyrolysis for gas of various petroleum products at 700-800°, was fractionated and the fraction b. 100-200° investigated for aromatic compds. The following compds. were sepd. from this fraction by further fractionation and chem. treatment: mesitylene (m_p 1.4910, d₄ 0.869, and b. 162-166°); pseudocumene as sulfonic acid (m. 110°); xylene (b. 177-183°); hydrindene (d₄ 0.908, m_p 1.5113, and b. 173-177°); and β , β -binaphthyl, the origin of which is not clear. From the tar fraction b. 200-300° was sepd. α -methylnaphthalene (d₄ 1.0248, m_p 1.8165, b. 240-243°); β -methylnaphthalene (m. 31.5° after 2 recrystns. from EtOH); acenaphthene (m. 95°), a mixt. of dimethylnaphthalenes; and the previously found naphthalene, anthracene and phenanthrene. Method of sepg. the above compds. are given. Thirty references.

A. A. Podgorny

ALB-12A METALLURGICAL LITERATURE CLASSIFICATION

1934-1935

1936-1937

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CA

The *n*-bromo-*d*-camphor-*r*-sulfonates of the rare earths.
 Ya. Ya. Dodonov and K. F. Protvanova. *Doklady
 Akad. Nauk S.S.S.R.* 68, 861-4 (1940).—*NT*, bromo-
 camphorsulfonate was converted to the Ag salt by ex-
 change with AgNO_3 ; the Ag salt treated with the corre-
 sponding metal chlorides in aq. medium, filtered, and
 evapd., gave on cooling the following rare earth salts,
 which were dried over H_2SO_4 to const. wt.; the hydration
 was detd. by vacuum drying. All are sol. in H_2O , de-
 comp. on heating, and are insol. in org. solvents. *La*-
 $(\text{C}_{10}\text{H}_{15}\text{O}_4\text{BrS})_2 \cdot 9\text{H}_2\text{O}$, $[\alpha]_D^{20}$ 76.36°; *Ce* $(\text{C}_{10}\text{H}_{15}\text{O}_4\text{BrS})_2 \cdot 8\text{H}_2\text{O}$, $[\alpha]_D^{20}$ 76.22°; *Nd* $(\text{C}_{10}\text{H}_{15}\text{O}_4\text{BrS})_2 \cdot 9\text{H}_2\text{O}$, $[\alpha]_D^{20}$ 75.97°.
 The rotation increases with decrease of at. wt. of the metal,
 and the at. wts. can be calcd. from the optical data with
 good agreement except for Nd, which gave too low a value,
 probably because of some contamination with Ce and La.
 G. M. Kosolapoff

Saratov State U.

VASIL'YEV, A.M.; PROUKHINA, V.I.

Reduction of certain metal ions from fluoride solutions on a mercury drop electrode. Trudy KKHTI no.17:58-62 '52 [publ. '53].

(Fluorine compounds) (Metals)

(MIRA 12:11)

PROUKHINA, V.I.

✓ The reduction of ions of some metals in a solution of fluoride salts with the mercury electrode. A. M. Vasil'ev and V. I. Proukhina. *Trudy Kazan. Khim. Tekhnol. Inst.* Ser. Khim. 1953, No. 17, 52-52. The character of reduction of ions of Fe, Cr, Cu, Zn, Co, and Ni in solns. of fluoride salts of K and NH₄ was studied. The concn. of fluoride salts was 0.0004-0.23M. Complex formation by Cr and Fe has a step-by-step character. The possibility of the existence of complexes of CrF²⁺, CrF³⁺, and CrF₄ is suggested. Alexis M. Pearson.

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PROUKHINA, V. I.

183T25

USSR/Chemistry - Cadmium and Lead
Compounds

Jul/Aug 51

"Polarographic Investigation of the Stability of
Chloride and Bromide Complexes of Cadmium and Lead,"
A. M. Vasil'yev, V. I. Proukhina, Kazan' State U

"Zhur Analit Khim" Vol VI, No 4, pp 218-222

Established existence of following complexes:
(PbCl)⁺ and (PbCl₃)⁻ only in KCl electrolyte;
(CdCl)⁺ in KCl and NaCl; (CdCl₆)⁻⁻⁻ in KCl; (PbBr)⁺
and (CdBr₄)⁻⁻⁻ in KBr. Calcd consts of instability
for all complexes and consts of dissocn for PbCl₂,
PbBr₂, CdCl₂, and CdBr₂. Showed lower tendency of
Na salts to support complex formation.

LC

183T25

CHEEMAREV, A.P.; PRJOURZIN, V.K.

Determining the amount of free increase in width during hot rolling.
Trudy DII 36 Ser.met. no:6:95-110 '59. (MIRA 14:9)
(Rolling (Metalwork))

124-58-6-7225

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 6, p 127 (USSR)

AUTHORS: Zaruyev, V.M., Prouzlin, V.K.

TITLE: The Mechanical Properties of Steel 55S2 at Elevated Temperatures
(Mekhanicheskiye svoystva stali 55S2 pri vysokikh temperaturakh)

PERIODICAL: Tr. Donetsk. industr. in-ta, 1957, Vol 19, pp 5-7

ABSTRACT: Results are given of an investigation made of the strength and ductility of steel 55S2 at temperatures up to 1100°C.

N.M. Dubrovin

1 Steel--Mechanical properties 2 Steel--Temperature factors

Card 1/1

PROURZIN, V.K.

Reducing certain formulas to standard forms for the determination
of free widening during the rolling process. Izv. vys. uchab. zav.;
chern. met. 6 no.10:84-87 '63. (MIRA 16:12)

1. Donetskii politekhnicheskii institut.

SOV 137-57 11-22402

Translation from: Referativnyy zhurnal Metallurgiya, 1957, Nr 11, p 253 (USSR)

AUTHORS: Zaruyev, V. M., Pcurzin, V. K.

TITLE: The Mechanical Properties of Nr 55S2 Steel at Elevated Temperatures (Mekhanicheskiye svoystva stali 55S2 pri vysokikh temperaturakh)

PERIODICAL: Tr. Donetsk. industr. in-ta, 1957, Vol 10, pp 5-7

ABSTRACT: The effect of test temperatures of from 20 to 1100°C upon σ_b , σ_s and δ of Nr 55S2 steel is investigated to determine the optimum temperature for the end of the rolling operation. The specimens were first oil-hardened from 860° and tempered at 400° for 1 hour. It is found that in this case the σ_b of Nr 55S2 steel practically does not change up to 500° and then drops sharply. In the 820-900° test temperature interval it is found that the decline in σ_b ceases, this being related to phase recrystallization and change in grain size. It is recommended that the temperature at the end of rolling and forging be held at $\geq 950^\circ$.

N. K.

Card 1/1

PROURZIN, V. K.

✓ Determination of the Pressure of Metal on the Rolls. M. Z. Levin, M. F. Leshchinskii, K. D. Shumilov, and V. K. Prouzin. (*Stal*, 1936, (11), 1033-1034). (In Russian). Results of experimental determinations of rolling pressures on a continuous strip mill are presented and compared with calculated values. The temperature and width of the strip, the reduction, rolling speed, chemical composition, and mechanical properties of the metal were determined simultaneously.—S. K.

hm of

Donetsk Industrial Inst.

S/137/60/000/010/011/040
AC06/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1960, No. 10, p.113, # 23293

AUTHORS: Chekmarev, A.P., Prourzin, V.K.

TITLE: On the Problem of Determining the Value of Free Widening in Hot Rolling

PERIODICAL: Tr. Donetsk. industr. in-ta, 1959, Vol. 36, pp. 95-110

TEXT: Data obtained from the rolling of square cross-section low carbon steel samples, heated up to 1,150 and 900°C, were used for an analysis of formulae of widening given by various authors. Relative reduction $\Delta h/H$ varied within 8 - 70%. The graphical comparison of experimental and calculated functional dependences, at two variants of heating the metal to be rolled, makes it possible to evaluate the degree to which the changes in the friction conditions on the contact surfaces have been correctly taken into account in the formula analyzed.

G.G.

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

FRANK, J.: FRANK, J.

Primary control on a collective farm. p. 37 (Rolnicke Wlasy Vol. 11, no. 1, Jan. 1957. Praha)

SC: Monthly List of East European Accession (REAL) 10, Vol. 6, no. 7, July 1957. Incl.

PROUZA, B.

PROUZA, B. Advantages of collective farm production become more apparent every year. p. 5. Long-range planning will already influence the next one-year plan. p. 7.

Vol. 10, no. 12, Dec. 1956

ROLNICKÉ HLASY

AGRICULTURE

Czechoslovakia

Ss: East European Accession, Vol. 6, No. 5, May 1957

PROUZA, Ivudvig (Pardubitse, Chekhoslovakiya)

Stability of an extrapolation device. Avtom. i telem. 20

no. 4:518-520 Ap '59.

(MIRA 12:5)

(Automatic control)

16(2)

PHASE I BOOK EXPLOITATION CZECH/2556

- Conference on Information Theory, Statistical Decision Functions, Random Processes. 1st, Liblice, 1956.

Transactions. Prague, Czechoslovak Academy of Sciences, 1957.
354 p. 1,000 copies printed.

Sponsoring Agency: Československá Akademie Věd. Sekce Technická.

Reviewers: Václav Dupač and Miloslav Jiřina; Scientific Ed.:
Jaroslav Kožešník, Corresponding Member, Czechoslovak Academy of
Sciences; Resp. Ed.: Ludek Böhm; Tech. Ed.: František
Končický.

PURPOSE: This book is intended for specialists interested in in-
formation theory and related subjects.

COVERAGE The book contains papers read at the First Prague Con-
ference on Information Theory, Statistical Decision Functions,
and Random Processes, held on November 28 - 30, 1956. The Con-

Card 1/5

Conference on Information Theory (Cont.)

CZECH/2556

ference was sponsored by the Czechoslovak Academy of Sciences and organized by the Institute of Radio Engineering and Electronics. The papers discuss various mathematical approaches to the problems of communications: information theory, probabilistic properties of communication, stochastic properties of communication, entropy, transformations of stochastic properties, statistical decision functions, randomized functional analysis, etc. Participants from China, Germany, Poland, Sweden, the United States, and the Soviet Union were present at the Conference. Of the 21 articles in the book, 14 are in English, 4 in French, 2 in German, and 1 in Russian.

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1901.1.

A few remarks on the notion of the correlation function and spectral density.

P. 721. (SLABOPROUDY OZOR.) (Praha, Czechoslovakia) Vol. 18, No. 10, Oct. 1957

SC: Monthly Index of East European Accession (EEAI) LC. Vol. 7, No. 5, 1958

MATYASH, I. (Pardubitz, Czechoslovakia); PROUZA, L. (Pardubitz, Czechoslovakia); SHILKHAKEK, Ya. (Pardubitz, Czechoslovakia)

Problem concerning the method for generating random processes with a given matrix of spectral densities. Avtom. i telem. 22 no.3: 403-405 Mr '61. (MIRA 14:9)
(Automatic control) (Pulse techniques (Electronics))

PROUZA, Ludvik, dr., CSc.; STEPANKOVA, Marie

On the defects of the AP3M and AP4 analogue computers. Slaboproudy
obzor 24 no.9:524-526 S '63.

1. Tesla Pardubice, n.p., Vyzkumny a vyvojovy zavod, Opocinek.

21373

Z/026/60/005/003/001/005
D221/D302

16.9500 (1031, 1121, 1132)

AUTHOR: Prouza, Ludvik

TITLE: On the linear theory of automatic correctors

PERIODICAL: Aplikace matematiky, v. 5, no. 3, 1960, 196-200

TEXT: The article describes optimum (according to Kolmogorov-Viner) automatic correctors with one particular modification of them, important in practical applications; a method of analysis and certain properties of optimum linear automatic correctors are presented as well as a description of linearized correctors according to V.V. Kondashevskiy (Ref. 1: Kontrol' razmera detaley v protsesse obrabotki (Automatic Control of Dimensions of Components during Machining), Oborongiz, Moskva, 1951); the latter utilize the measurement results of a single work piece and are a special case of the former. There is also a short description at the end of the article of a method of technically realizing an

Card 1/8

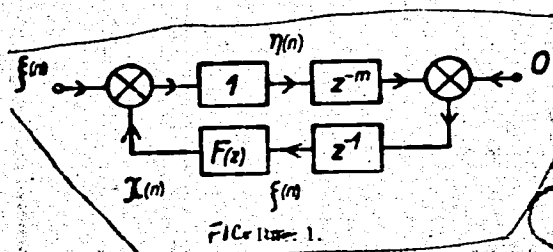
21373

Z/026/60/005/003/001/005
D221/D302

On the linear theory of ...

optimum filter in feedback coupling using digital computers. Automatic correctors are devices that automatically adjust the position of the working element (e.g. the cutting tool) after measuring one or more preceding pieces. They are used when pieces cannot be measured directly during machining. This process can be considered a control with a delay. A. Shpachek [Abstractor's note: No reference given] claims that linear adjustment is in a way equivalent to the Kolmogorov-Vin-er's optimum extrapolation. It is shown here that this statement is valid. In Fig. 1

Fig. 1



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On the linear theory of ...

the block, having unity transfer function 1 represents an idealized lathe; η is the collective attribute for the work pieces. The transfer function z^{-m} represents a delay (m time-intervals of the period equal to unity, $m \geq 0$) caused by handing over the pieces to the measuring system. The measurement results are compared with a standard. This operation is represented by the differential in the block diagram. The results of comparison with the unity delay is passed to a filter with the transfer function $F(z)$. Output of the filter alters the position of the working tool. Equations $\eta(n) = \xi(n) - \chi(n)$, (1); $\xi(n) = \eta(n - m - 1)$, (2); $\chi(n) = f[\eta(n - m - 1), \eta(n - m - 2), \dots]$ (3); (where f = linear combination over the sequence in parentheses) are based on the schematic diagram (Fig. 1) for every natural n expression $E[\eta^2(n)] = E[(\xi(n + m) - \chi(n + m))^2] = \min$, (4) represents a mathematical expectation E . It is evident from Eqs. (1) and (3) that the above supports the following theorem (Theo-

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Z/026/60/005/003/001/005
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rem 1.1): If Eq. (5) $x(n+m) = a_1 \xi(n-1) + a_2 \xi(n-2) + \dots$, then condition (4) complies with the condition of optimum linear extrapolation of the stable random sequence $\{\xi(l)\}$, ($l = 0, \pm 1, \pm 2, \dots$) up to $m+1$ steps. It follows from Fig. 1 and Eq. (4)

that Eq. (7) $1 - z^{-m} \Phi_m(z) = \frac{1}{1 + z^{-m-1} F(z)}$ holds, the author

citing A.M. Yaglom in support (Ref. 2: Vvedeniye v teoriyu stationarnykh sluchaynykh funktsiy (Introduction to the Theory of Stable Random Sequences), Usp. mat. nauk., tom VII, vyp. 5, 1952,

str. 3-168). In a practical case $F(z) = \sum_{k=0}^{\infty} \frac{b_k}{z^k}$ (9) and $b_0 \neq 0$.

[Abstractor's note: K not defined in this article]. A particular

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case is considered where $m = 0$ and $\{\xi(l)\}$ is a "white" sequence (Ref. 3, definition 2.2: L. Prouza. Stroje na zprac. inf., Sborník VI, 1958, s. 71-82). In this case $\Phi_m(z) = 0$ (Ref. 2: Op.

cit., p. 94), and from Eq. (7) $f(z) \equiv 0$. This is only true if there are no other disturbances. A disturbance may be caused by a small change in the quality of the material. If a regulator (corrector) eliminates the effect of "unit jump" J on N steps ($N \geq 1$) regardless at which n the jump appears, that is if (10)

$\varphi(l) = \xi(l)$ for $l < n$, $\varphi(l) = \xi(l) + J$ for $l \geq n$ then

$E \int \eta_\varphi(l) \int = E \int \eta_\xi(l) \int = 0$ for $l \geq n + N$ (11), where $\{\eta_\xi(l)\}$ and $\{\eta_\varphi(l)\}$ stand for controlled sequences with disturbances at the input $\{\xi(l)\}$ and $\{\varphi(l)\}$. Equations (10) and (11) yield (12) X

$\sum_{k=1}^N a_k = 1$, $a_k = 0$ for $k > N$. Theorem 2.1 states that in order for

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Eq. (4) to be minimum with condition (12) and with the disturbance at the input, it is necessary and sufficient that

$a_k = \frac{1}{N}$ for $k = 1, 2, \dots, N$. (13). A filter with sequence in Eq.

(14) $1, -\frac{1}{N}, -\frac{1}{N}, \dots, -\frac{1}{N}, 0, 0, \dots$ which corresponds to the

formula in Eq. (7) is analyzed in connection with control in a production process (Ref. 3: Op.cit., section 3). According to Theorem 3.6 in (Ref. 3: Op.cit.) Eq. (15)

$E \int \eta^2(l) \int = (1 + \frac{1}{N}) E \int \xi^2(l) \int$ is obtained. Theorem 2.2 states

that the transfer function $F(z)$ has a pole $z = 1$ and all its other poles lie inside a circle with the unit radius. It is

proved that Eq. (17) $u^N + u^{N-1} + \dots + u - N = 0$ has a root $u = 1$

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on the circumference of the unit circle and no roots within it.
For $|u| < 1$

$$\begin{aligned} \operatorname{Re} \{u^N + u^{N-1} + \dots + u\} &\leq |u^N + u^{N-1} + \dots + u| \leq \\ &\leq |u|^N + |u|^{N-1} + \dots + |u| < N \end{aligned} \quad (19)$$

which shows that there are no roots inside the circle.

Fig. 2

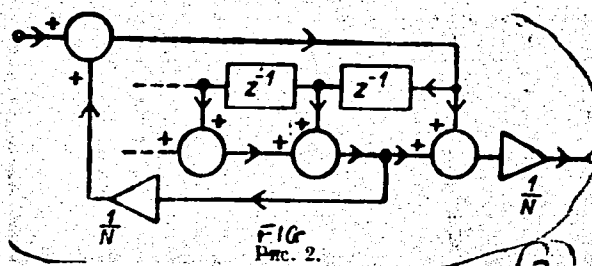


FIG.
Proc. 2.

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Fig. 2 depicts a schematic based on the general method described by J.R. Ragazzini and G.F. Franklin (pp. 75-77) (Ref. 5: Sampled-Data Control Systems. Mc Graw-Hill, N. York 1958). It can be seen from Eq. (15) that for practical control it is sufficient to take $N = 4$ or $N = 8$. There are 2 figures and 5 references: 4 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: J.R. Ragazzini, G.F. Franklin, Sampled-Data Control Systems. Mc Graw-Hill, N. York 1958.

SUBMITTED: July 22, 1959

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S/044/63/000/001/036/053
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AUTHOR: Prouza, Ludvik

TITLE: On filtering a stationary random signal with a mixed linear filter

PERIODICAL: Referativnyy zhurnal, Matematika, no. 1, 1963, 16, abstract 1V60
(Stroje na zpracov. inform., 1960, v. 7, 67 - 81; German; summaries in Czech, Russian, English, German)

TEXT: The author considers the following transformation, which to a stationary process $\xi(t)$ accords some new stationary process $\eta(t)$. Let η be a random variable independent of the process $\xi(t)$ and uniformly distributed on the segment $[0, 1]$. If η took on the value ε then the sequence $\xi(n + \varepsilon)$, where n runs over all integral values, is transformed by the discrete filter into the sequence

$$\eta(n + \varepsilon) = \sum_{k=0}^{\infty} w_k \xi(n + \varepsilon - k).$$

Thereupon the sequence $\eta(n + \varepsilon)$ passes through some continuous filter, on

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the output of which one obtains the process $\xi(t)$ with a continuous time parameter. The author computes and investigates the correlation function of the process $\xi(t)$. Moreover, the article studies the ergodic properties of that process and indicates the uses of this type of processes.

M.G. Shur

[Abstracter's note: Complete translation]

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PROUZA, Ludvik, dr.

Electronic analogue computers. Automatizace 5 no.4:89-92, 119 ip
162.

1. Tesla Pardubice, n.p.

PER WZA, Ludvik dr. (Pardubice, Dukla 2179)

Note on a formula of "sampled" functions. Aplikace mat 5 no.6:
453-457 '60.

PROUZA, Ludvik, dr.

Breakdown incidence of electronic equipment. Slaboproudý obzor
22 no.1:2-5 '61. (EEAI 10:5)

1. TESLA Pardubice, n.p. Vyskumný a vývojový závod Opocinek.
(Electronic equipment)

~~PROUZA, LUDVIK~~
CZECH/SLOVAKIA/Radio Physics - Statistical Phenomena in Radio Physics I-2

Jbs Jour : Ref Zhur - Fizika, No 6, 1958, No 13740

Author : Prouza Ludvik

Inst : Not Given

Title : Certain Remarks on the Correlation and Spectral Functions

Orig Pub : Slaboproudy obzor, 1957, 18, No 10, 721-725

Abstract : A comparison is made of different definitions of the correlation and spectral functions of a stationary stochastic process, given in the literature.

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FROUZA, L., dr. CSc.

Conference on the new technology in Pardubice. Slaboproudý
obzor 25 no.3:175-176 Mr '64.

PROUZA, Ludvik

Modelling of pulse systems on an electronic analogue computer.
Stroje na zprac inf 8:95-102 '62.

1. Tesla, Pardubice.

PRIMA, L.

"A note on linear prediction by means of a prediction filter. In German."

p. 37 (Vol. 12, 1956, Prague, Czechoslovakia)

Monthly Index of East European Accession (EEAI) LC, Vol. 7, No. 8, August 1958

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SOV/103-21-1-17/22

AUTHOR: Prouza, L. (Pardubice, Czechoslovakia)
 TITLE: Note on Properties of Simple Extrapolator With
 a "Key"
 PERIODICAL: Avtomatika i telemekhanika, 1960, Vol 21, Nr 1,
 pp 137-138 (USSR)
 ABSTRACT: In the study a theorem is proven giving relation
 between properties of a simple sampling extrapolator
 without a time lag and one with the time lag. The
 transfer function of the continuous linear part of
 the extrapolator;

$$Y(q) = e^{-\lambda} \left(\frac{x}{q} + \frac{y}{q^2} \right) \quad (1)$$

derived by L. Prouza in the paper, "On the Stability
 of an Extrapolating Device" (Ob ustoychivosti
 odnovo ekstrapoliruyushchego ustroystva), Avtomatika

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1 telemekhanika, Vol 20, Nr 4, 1959, is a particular form of the theorem proven in this study. In Eq. (1) symbol T represents the time lag. The general impulse transfer function of the system in the open state is given in the form:

$$Y^*(e^q, z) = \sum_{n=0}^{\infty} y(n+z) e^{-nq}, \quad (2)$$

where $y(t) = F^{-1}Y(q)$, $y(0) = 0$, $0 \leq \varepsilon \leq 1$.

Let T change in the range < 0.1 . It may be shown that for $\varepsilon \ll 1$:

$$Y^*(e^q, \varepsilon) = Y_1^*(e^q, \varepsilon) = \frac{[(1-\beta\varepsilon) + \beta(1+\varepsilon)] e^q + (1-\beta\varepsilon) - \beta\varepsilon}{(e^q - 1)^2} \quad (3)$$

and for $\varepsilon > 1$

$$Y^*(e^q, \varepsilon) = Y_2^*(e^q, \varepsilon) = Y_1^*(e^q, \varepsilon) + (1-\beta\varepsilon) + \beta\varepsilon. \quad (4)$$

From Eq. (3) and Eq. (4), the ordinary impulse transfer function results in the form:

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$$Y^*(e^j) = Y_1^*(e^j, 0) = e^{-j\tau} Y_2^*(e^j, 1) = \frac{[(z - \beta\tau) + \beta]z - (z - \beta\tau)}{(z - 1)^2} \quad (5)$$

here $e^j = z$.

Two theorems are formulated: Theorem I: Let α_1 , β_1, τ be parameters of the first extrapolator, and let the parameters of the second extrapolator be as follows:

$$\alpha_2 = \alpha_1 - \beta_1\tau, \quad \beta_2 = \beta_1, \quad \tau_2 = 0. \quad (6)$$

then $Y^*(z)$ for them are identical. The proof of this follows from Eq. (5). Theorem II: Each property depending on transfer function Eq. (5) only is identical for extrapolators whose parameters are related by Eq. (6). Thus Eq. (1) represents a

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special case of Theorem II. Some examples of the theorem application are discussed with reference to publications by J. Sklansky (see Ref 1 of this abstract), A. Benner, and R. Drenick (see Ref 3 of this abstract). By means of Eq. (6) the stability region and other characteristics of the extrapolator depending on τ may be transformed. There are 7 references, 4 Soviet, 3 U.S. The U.S. references are: Sklansky, J., Optimizing the Dynamic Parameters of a Track-While-Scan System, RCA Rev., Nr 2, June 1957; Johnson, G. W., Statistical Analysis of Sampled-Data Systems, Convent. Rec. IRE Wescon, Pt 4, 1957; Benner, A. H., Drenick, R. An Adaptive Servo System, Convent. Rec. IRE., Pt 4, 1955.

SUBMITTED: March 23, 1959

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PROUZA, L.; KOUTSKY, Z.

A construction of an acceptance region for sampling inspection based on average and range. p. 441.

SLABORPROUDY OBZOR. Praha. Vol. 14, no. 10, Oct. 1953.

SOURCE: East European Accessions List (EEAL), IC, Vol. 5, no. 3, March 1956.

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Z/039/61/022/001/001/006
E192/E382

13.2941

AUTHOR: Prouza, Ludvík, Doctor

TITLE: Fault-proneness in Electronic Equipment and Its Probability

PERIODICAL: Slaboproudý obzor, 1961, Vol. 22, No. 1, pp. 2 - 5

TEXT: The fault-proneness of an electronic component can be estimated quantitatively in the following manner. It is assumed that the equipment contains n identical components and that these operate under similar conditions. At regular time intervals Δt , the number of components functioning correctly are recorded, i.e. $n(0)$, $n(2\Delta t)$, $n(\Delta t)$, $n(3\Delta t)$ and $n(t)$ where t is a multiple of Δt . A sequence defined by:

$$m(0) = \frac{n(0) - n(\Delta t)}{n(0) \cdot \Delta t}, \quad m(\Delta t) = \frac{n(\Delta t) - n(2\Delta t)}{n(\Delta t) \cdot \Delta t} \quad (1)$$

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